

CADILLAC FOREST MANAGEMENT UNIT



COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 76 ENTRY YEAR: 2004

Compartment Acreage (GIS Acres): 2,011 County: Missaukee

Revision Date: 10/29/2002 1:55 PM

Stand Examiner: Jason Stephens, Forest Technician

Legal Description: T24N, R5W, Sec. 1,12,&13.

RMU: Mixed Use, 227

Management Goals: To maintain a variety of cover types and age class diversity that favors game as well as non-game species. Past focus on this area has been on the development of the Norwich Oil Field that encompasses over 80% of this Compartment. Long-term goals for the RMU are to decrease the acreage of grass and upland brush (-220 acres) while increasing the acreage of red and white pine (+220 acres).

Soil and Topography: The terrain of this Compartment ranges from flat lowland (to the south), to rolling uplands (to the north). Soil series' include Rubicon-Montcalm-Graycalm & Lupton-Roscommon-Tawas associations.

Ownership Patterns, Development, and Land Use In and Around the Compartment: The state owns all lands within the boundaries of this Compartment. The lands adjacent to this Compartment are primarily state owned with some small private in-holdings. The adjoining state lands falls into three separate Forest Management Units (Traverse City-Kalkaska, Roscommon, and Grayling). There are no parcels of land in this Compartment that are recommended for acquisition or disposal. This Compartment has been heavily developed for its oil and gas resources.

Unique, Natural Features: The southern one-third of Section 13 contains the northern edge of the Dead Stream Swamp, although this area is not part of the official designated Dead Stream Swamp management area. This portion of the swamp is the headwaters for Cole creek (a tributary to the Dead Stream). The Michigan Natural Features Inventory Database lists no occurrences of threatened or endangered species. There is potential for Hill's Thistle, rough fescue, *Prunus alleghaniensis*, pale agoseris, and other dry prairie plants in the numerous grassy openings. There is also potential for the dusted skipper and red-legged spittlebug as well. The cedar cover type shows potential for ram's head, limestone oak fern, and calypso.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): Several old railroad grades (well grown in) cross over the Compartment. No known archeological or historical sites within the Compartment.

Special Management Designations or Considerations: There are numerous oil wells and associated networks of unmarked above ground and shallow pipelines. This limits the possibilities for prescribed burning in the fire dependant ecosystems present in this Compartment.

Watershed and Fisheries Considerations: The headwaters of Cole Creek begin in Stand 45 of Compartment 76. Cole Creek is a Designated Trout Stream, most likely with a population of brook trout. Cole Creek is a tributary of the Dead Stream, which is a tributary of the Muskegon River. Future management in the headwaters area of Cole Creek should be for coniferous species in the riparian corridor. (M. Tonello, 10/15/02)

Wildlife Habitat Considerations: Past management efforts have been to maintain the aspen type and to establish mixed age classes of aspen and to manage and maintain the oak component for acorn production and mature timber for use by songbirds and turkeys. Much of this management has already been accomplished. Although along the north edge of the Deadstream Swamp, a major deer yard and prime habitat for bear and bobcat, little else can be done to improve habitat in the uplands because of heavy oil and gas development. There is little chance for burning in understories or openings. (L.Smith, 9/20/02)

Mineral Resource and Development Concerns and/or Restrictions: This Compartment contains a significant portion of the heavily developed Norwich Oil Field. Numerous surface underground pipelines exist though out the area and need to be removed, as they are abandoned. Individual well sites that become abandoned should be monitored for progress on cleanup and restoration of the sites. Section 12 contains an inactive gravel pit. Past stabilization attempts have succeeded in preventing severe erosion of the steepest banks. Heavy snowmobile and ORV use has prevented actual reforestation of the pit. The area would need to be fenced off completely if plantings were to be successful. See below for more specific Mineral information:

MINERAL RESOURCES

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. Glacial drift thickness varies between 200 and 600 feet. There is approximately 260 feet of local relief. Beneath the Glacial Drift is the Mississippian Michigan Formation. The Michigan Formation is quarried for gypsum in other areas of the State. A gravel pit is located in Section 12. Gravel potential in the compartment is thought to be good on the uplands. Part of East Norwich Field is located in this compartment. The field has produced over 15.9 million BO and 15.7 Bcf gas from the Devonian Richfield Formation. It is in secondary recovery operations currently. The compartment is almost entirely surface only with mineral reservation. There are a few State fee parcels leased and HBP. There may be additional oil and gas potential in this area. (Tom Hoane 8/23/2002)

Vehicle Access: A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. Also indicated are forest roads and trails under the jurisdiction of the DNR that are proposed for abandonment. These roads were determined to be in excess of the access needs in the area, are a threat to the resources, or are a concern environmentally.

Proposed new roads or roads recommended for substantial improvement are noted below:

No new roads or improvements recommended.

Survey Needs: There are no department corners within this compartment. Corners currently established are adequate for land management needs.

Recreational Facilities and Opportunities: Portions of the Miss-Kal Snowmobile Trail, West Higgins Lake ORV-Cycle Trail, and the West Missaukee Cycle Trail are within the boundaries of this Compartment. These all receive heavy use throughout the year. (Koll 10/4/2)

Fire Protection: The presence of oil wells with shallow and above ground pipelines complicate fire suppression tactics and enhance the risk to firefighters. There are no private residences reducing the ignition threat and the abundance of roads in the Compartment allows for good access in the event a fire occurs. However history show fires will likely continue to strike in this area over time. (Koll 10/4/2)

Additional Compartment Information:

No parcels recommended for acquisition within this Compartment.

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
- ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

MISSAUKEE COUNTY

COMPARTMENT: 76

Table 3

COVER TYPE	(acres shown in boxes)																		Total
	Not Coded	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	All Aged	
Aspen		83	104		48	9													244
Cedar												331							331
Grass	106																		106
Jack Pine			44				13												57
Non Stocked	30																		30
Oak			59					59	525	342									985
Red Pine		19	13	14															46
Upland Brush	117		43																160
Upland Hdwds			28	7				11											46
Water	6																		6
Total	259	102	291	21	48	9	13	70	525	342		331							2011

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

MISSAUKEE COUNTY

COMPARTMENT: 76

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	A	S	V	C	G	H	J	I	L	P	N	Q	X	O	B	R	K	Y	F	E	T	D	U	M	Z	W	Total
A Aspen	244																										244
C Cedar				331																							331
G Grass					106																						106
J Jack Pine							57																				57
X Non Stocked													30														30
O Oak														985													985
R Red Pine																46											46
U Upland Brush							32							27									101				160
M Upland Hdws	11																							35			46
Z Water																									6		6
Total	255			331	106		89						30	1012		46							101	35	6		2011

PERE MARQUETTE STATE FOREST

CADILLAC MGT UNIT

MISSAUKEE COUNTY

COMPARTMENT: **76****Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS**

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	8743 Cds	Hardwood	1392 Cds
Hardwood	3326 Mbf	Hardwood	74 Mbf
Softwood	5882 Cds	Softwood	10 Cds
Softwood	448 Mbf	Softwood	4 Mbf
Sum TotVol	22173 Cds	Sum CutVol	1558 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	101
2011		Acres Meeting Silv Criteria.....	342
		Acres Not Meeting Silv Criteria.....	1669
		Acres Unable to Determine Silv Criteria For.....	

CADILLAC MGT UNIT
**Proposed Treatments
With NO Limiting Factors**
Compartment: 76
Entry Year: 2004

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
7	O9	52	61	53	oak	mature	thinning	6		
comnts Fmd : Stands 7 & 19 are under contract (Sale #63-37-99-01) as "4 corners Oak". Expect to be cut, expires in spring 2003. The current contract specifies the cut type as "Thinning", so this MOC is coded to be consistent with that.										
9	O9	31	81	60	oak	mature	thinning	1		
comnts Fmd : Stand was previously Rx'd but not cut. Mortality in mixed oak. Ignore old paint (faded yellow) when remarking with different color.										
19	O9	7	61	53	oak	mature	thinning	6		
comnts Fmd : Stands 7 & 19 are under contract (Sale #63-37-99-01) as "4 corners Oak". Expect to be cut, expires in spring 2003.										
31	U0	32			jack pine	nonstocked		0	planting	
comnts Fmd : Blueberry in poor condition. Appears to be VERY sterile ground. Recommend planting jack pine.										
38	M6	11	67	55	aspen (upland)	high risk	final harvest	2		
comnts Fmd : Pit & mound, hummocky ground. Early successional species are declining. Possibly treat commercially, likely will have to habitat cut. Leave Oak for Mast, and cedar & hemlock. Cover type is closer to "P" type. Recommend shortwood operation. Above ground pipeline bisects stand east to west.										
Total Acres.....		133								

**Proposed Treatments
With Limiting Factors**

Compartment: 76

Entry Year: 2004

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
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TREATMENT LIMITING FACTORS:

Total Acres..... 0